

SEQUENCE LISTING

<110> Rothman, James
Mayhew, Mark
Hoe, Mee

<120> KDEL RECEPTOR INHIBITORS

<130> 31488

<140> US 09/124,671

<141> 1998-07-29

<160> 42

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 46

<212> PRT

<213> Ratus ratus

<400> 1

Gly	Asp	Leu	Ala	Pro	Gln	Met	Leu	Arg	Glu	Leu	Gln	Glu	Thr	Asn	Ala
1				5					10					15	
Ala	Leu	Gln	Asp	Val	Arg	Glu	Leu	Leu	Arg	Gln	Gln	Val	Lys	Glu	Ile
		20					25					30			
Thr	Phe	Leu	Lys	Asn	Thr	Val	Met	Glu	Cys	Asp	Ala	Cys	Gly		
	35						40					45			

<210> 2

<211> 46

<212> PRT

<213> Homo sapiens

<400> 2

Ser	Asp	Leu	Gly	Pro	Gln	Met	Leu	Arg	Glu	Leu	Gln	Glu	Thr	Asn	Ala
1				5					10					15	
Ala	Leu	Gln	Asp	Val	Arg	Asp	Trp	Leu	Arg	Gln	Gln	Val	Arg	Glu	Ile
		20					25					30			
Thr	Phe	Leu	Lys	Asn	Thr	Val	Met	Glu	Cys	Asp	Ala	Cys	Gly		
	35						40					45			

<210> 3

<211> 46

<212> PRT

<213> Mus musculus

<400> 3

Gly	Glu	Gln	Thr	Lys	Ala	Leu	Val	Thr	Gln	Leu	Thr	Leu	Phe	Asn	Gln
1				5					10					15	

Ile	Leu	Val	Glu	Leu	Arg	Asp	Asp	Ile	Arg	Asp	Gln	Val	Lys	Glu	Met
			20						25				30		
Ser	Leu	Ile	Arg	Asn	Thr	Ile	Met	Glu	Cys	Gln	Val	Cys	Gly		
		35					40					45			

<210> 4
 <211> 46
 <212> PRT
 <213> Homo sapiens

<400> 4															
Gly	Glu	Gln	Thr	Lys	Ala	Leu	Val	Thr	Gln	Leu	Thr	Leu	Phe	Asn	Gln
1				5					10					15	
Ile	Leu	Val	Glu	Leu	Arg	Asp	Asp	Ile	Arg	Asp	Gln	Val	Lys	Glu	Met
			20						25				30		
Ser	Leu	Ile	Arg	Asn	Thr	Ile	Met	Glu	Cys	Gln	Val	Cys	Gly		
		35					40					45			

<210> 5
 <211> 46
 <212> PRT
 <213> Homo sapiens

<400> 5															
Gly	Asp	Phe	Asn	Arg	Gln	Phe	Leu	Gly	Gln	Met	Thr	Gln	Leu	Asn	Gln
1			5						10					15	
Leu	Leu	Gly	Glu	Val	Lys	Asp	Leu	Leu	Arg	Gln	Gln	Val	Lys	Glu	Thr
			20						25				30		
Ser	Phe	Leu	Arg	Asn	Thr	Ile	Ala	Glu	Cys	Gln	Ala	Cys	Gly		
		35					40					45			

<210> 6
 <211> 46
 <212> PRT
 <213> Xenopus laevis

<400> 6															
Gly	Asp	Val	Ser	Arg	Gln	Leu	Ile	Gly	Gln	Ile	Thr	Gln	Met	Asn	Gln
1			5						10					15	
Met	Leu	Gly	Glu	Leu	Arg	Asp	Val	Met	Arg	Gln	Gln	Val	Lys	Glu	Thr
			20						25				30		
Met	Phe	Leu	Arg	Asn	Thr	Ile	Ala	Glu	Cys	Gln	Ala	Cys	Gly		
		35					40					45			

<210> 7
 <211> 27
 <212> PRT
 <213> Homo sapiens

<400> 7															
Gln	Lys	Leu	Gln	Asn	Leu	Phe	Ile	Asn	Phe	Cys	Leu	Ile	Leu	Ile	Cys
1				5					10					15	
Leu	Leu	Leu	Ile	Cys	Ile	Ile	Val	Met	Leu	Leu					

20

25

<210> 8

<211> 9

<212> PRT

<213> papillomavirus

<400> 8

Leu Leu Leu Gly Thr Leu Asn Ile Val

1

5

<210> 9

<211> 9

<212> PRT

<213> papillomavirus

<400> 9

Leu Leu Met Gly Thr Leu Gly Ile Val

1

5

<210> 10

<211> 9

<212> PRT

<213> papillomavirus

<400> 10

Thr Leu Gln Asp Ile Val Leu His Leu

1

5

<210> 11

<211> 9

<212> PRT

<213> papillomavirus

<400> 11

Gly Leu His Cys Tyr Glu Gln Leu Val

1

5

<210> 12

<211> 9

<212> PRT

<213> papillomavirus

<400> 12

Pro Leu Lys Gln His Phe Gln Ile Val

1

5

<210> 13

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> chimeric rat comp

<400> 13

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Met Gly Lys Phe Thr Val Val Ala Ala Ala Leu Leu Leu Leu Gly Ala
 1              5              10              15
Val Arg Ala Glu Gly Ser Ser Leu Gly Gly Asp Leu Ala Pro Gln Met
              20              25              30
Leu Arg Glu Leu Gln Glu Thr Asn Ala Ala Leu Gln Asp Val Arg Glu
              35              40              45
Leu Leu Arg Gln Gln Val Lys Glu Ile Thr Phe Leu Lys Asn Thr Val
              50              55              60
Met Glu Cys Asp Ala Cys Gly Met Gln Pro Ala Arg Thr Pro Gly Thr
65              70              75              80
Ser Pro Gln Pro Gln Pro Lys Pro Gln Pro Gln Pro Gln Pro Gln Pro
              85              90              95
Lys Pro Gln Pro Lys Pro Glu Pro Glu Gly Thr Gly Ser Ser Glu Lys
              100              105              110
Asp Glu Leu
              115
```

<210> 14

<211> 387

<212> DNA

<213> Artificial Sequence

<220>

<223> chimeric rat COMP-KDEL

<400> 14

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cgggccgagg gatccagcct gggaggagac ctagcccccac agatgcttcg agaactccag      120
gagactaatg cggcgctgca agacgtgaga gagctcttgc gacagcaggt caaggagatc      180
accttcctga agaatacggg gatggaatgt gacgcttgcg gaatgcagcc cgcacgcacc      240
cccggacta gtccgcagcc gcagccgaaa ccgcagccgc agccgcagcc gcagccgaaa      300
ccgcagccga aaccggaacc ggaaggtacc ggatcatcag aaaaagatga gttgtaggcg      360
gccgcagaat tccatatgca tctcgag                                     387
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<210> 15

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> chimeric rat COMP-KDEL

<400> 15

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Met Gly Lys Phe Thr Val Val Ala Ala Ala Leu Leu Leu Leu Gly Ala
 1              5              10              15
Val Arg Ala Glu Gly Ser Ser Leu Gly Gly Asp Cys Cys Pro Gln Met
              20              25              30
Leu Arg Glu Leu Gln Glu Thr Asn Ala Ala Leu Gln Asp Val Arg Glu
              35              40              45
Leu Leu Arg Gln Gln Val Lys Glu Ile Thr Phe Leu Lys Asn Thr Val
```

50		55		60
Met Glu Cys Asp Ala Cys Gly Met Gln Pro Ala Arg Thr Pro Gly Thr				
65		70		80
Ser Pro Gln Pro Gln Pro Lys Pro Gln Pro Gln Pro Gln Pro Gln Pro				
	85		90	95
Lys Pro Gln Pro Lys Pro Glu Pro Glu Gly Thr Gly Ser Ser Glu Lys				
	100		105	110
Asp Glu Leu				
115				

<210> 16
 <211> 387
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> chimeric rat COMP-KDEL

<400> 16	
aagcttacca tgggaaagtt cactgtggtg gcggcggcgt tgctgctgct gggcgcggtg	60
cgggccgagg gatccagcct ggggtggagac tggtgtccac agatgcttcg agaactccag	120
gagactaatg cggcgctgca agacgtgaga gagctcttgc gacagcaggt caaggagatc	180
accttctctga agaatacggg gatggaatgt gacgcttgcg gaatgcagcc cgcacgcacc	240
cccggacta gtccgcagcc gcagccgaaa ccgcagccgc agccgcagcc gcagccgaaa	300
ccgcagccga aaccggaacc ggaaggtacc ggatcatcag aaaaagatga gttgtaggcg	360
gccgcagaat tccatagca tctcgag	387

<210> 17
 <211> 105
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> chimeric mouse TSP3-KDEL

<400> 17	
Met Gly Lys Phe Thr Val Val Ala Ala Ala Leu Leu Leu Leu Gly Ala	
1	15
Val Arg Ala Glu Gly Ser Ser Leu Gly Gly Asp Cys Cys Lys Ala Leu	
20	30
Val Thr Gln Leu Thr Leu Phe Asn Gln Ile Leu Val Glu Leu Arg Asp	
35	45
Asp Ile Arg Asp Gln Val Lys Glu Met Ser Leu Ile Arg Asn Thr Ile	
50	60
Met Glu Cys Gln Val Cys Gly Pro Gln Pro Gln Pro Lys Pro Gln Pro	
65	80
Gln Pro Gln Pro Gln Pro Lys Pro Gln Pro Lys Pro Glu Pro Glu Gly	
85	95
Thr Gly Ser Ser Glu Lys Asp Glu Leu	
100	105

<210> 18
 <211> 357

<212> DNA
<213> Artificial Sequence

<220>
<223> chimeric mouse TSP3-KDEL

<400> 18
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cgggccgagg gatccagcct ggggtggagac tggtgtaagg cattggtcac ccagctcacc 120
ctcttcaacc agatcctagt ggagcttcgg gacgacatcc gagaccaggt gaaggaaatg 180
tcactcatcc ggaacacccat catggagtgt caggtgtgctg gtcgcagcc gcagccgaaa 240
ccgcagccgc agccgcagcc gcagccgaaa ccgcagccga aaccggaacc ggaaggtacc 300
ggatcatcag aaaaagatga gttgtaggcg gccgcagaat tccatatgca tctcgag 357

<210> 19
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> chimeric mouse TSP3-KDEL

<400> 19
Met Gly Lys Phe Thr Val Val Ala Ala Ala Leu Leu Leu Leu Gly Ala
1 5 10 15
Val Arg Ala Glu Gly Ser Ser Leu Gly Gly Asp Cys Cys Gly Glu Gln
20 25 30
Thr Lys Ala Leu Val Thr Gln Leu Thr Leu Phe Asn Gln Ile Leu Val
35 40 45
Glu Leu Arg Asp Asp Ile Arg Asp Gln Val Lys Glu Met Ser Leu Ile
50 55 60
Arg Asn Thr Ile Met Glu Cys Gln Val Cys Gly Pro Gln Pro Gln Pro
65 70 75 80
Lys Pro Gln Pro Gln Pro Gln Pro Gln Pro Lys Pro Gln Pro Lys Pro
85 90 95
Glu Pro Glu Gly Thr Gly Ser Ser Glu Lys Asp Glu Leu
100 105

<210> 20
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> chimeric mouse TSP3-KDEL

<400> 20
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cgggccgagg gatccagcct ggggtggagac tggtgtgggg agcagaccaa ggcattggtc 120
accagctca ccctcttcaa ccagatccta gtggagcttc gggacgacat ccgagaccag 180
gtgaaggaaa tgtcactcat ccggaacacc atcatggagt gtcaggtgtg cggtcgcag 240
ccgcagccga aaccgcagcc gcagccgcag ccgcagccga aaccgcagcc gaaaccggaa 300
ccggaaggta ccggatcatc agaaaaagat gagttgtagg cggccgcaga attccatatg 360

catctcgag

369

<210> 21
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> chimeric *Xenopus laevis* TSP4-KDEL

<400> 21
Met Gly Lys Phe Thr Val Val Ala Ala Ala Leu Leu Leu Leu Gly Ala
1 5 10 15
Val Arg Ala Glu Gly Ser Ser Leu Gly Gly Asp Cys Cys Gly Asp Val
20 25 30
Ser Arg Gln Leu Ile Gly Gln Ile Thr Gln Met Asn Gln Met Leu Gly
35 40 45
Glu Leu Arg Asp Val Met Arg Gln Gln Val Lys Glu Thr Met Phe Leu
50 55 60
Arg Asn Thr Ile Ala Glu Cys Gln Ala Cys Gly Pro Gln Pro Gln Pro
65 70 75 80
Lys Pro Gln Pro Gln Pro Gln Pro Gln Pro Lys Pro Gln Pro Lys Pro
85 90 95
Glu Pro Glu Gly Thr Gly Ser Ser Glu Lys Asp Glu Leu
100 105

<210> 22
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> chimeric *Xenopus laevis* TSP4-KDEL

<400> 22
aagcttacca tgggaaagtt cactgtggtg gcggcggcgt tgctgctgct gggcgcggtg 60
cgggccgagg gatccagcct ggggtggagac tggtgtggtg acgtcagcag acagttgatt 120
ggccagataa cccaaatgaa tcagatgctg ggagagctcc gagatgtcat gagacagcag 180
gtgaaagaga ccatgttctt gagaaacacc attgcagaat gccaggcctg tggcccgcag 240
ccgcagccga aaccgcagcc gcagccgcag ccgcagccga aaccgcagcc gaaaccggaa 300
ccggaaggta ccggatcatc agaaaaagat gagttgtagg cggccgcaga attccatatg 360
catctcgag 369

<210> 23
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> chimeric human COMP-KDEL

<400> 23
Met Arg Tyr Met Ile Leu Gly Leu Leu Ala Leu Ala Ala Val Cys Ser

<210> 26
 <211> 315
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> chimeric human PLB-KDEL

<400> 26
 aagcttacca tgggaaggta catgatttta ggcttgctcg cccttgcggc agtctgcagc 60
 gctgccaaaa aaggatccag cctgggtgga gactgttgctc aaaagctaca gaatctattt 120
 atcaatttct gtctcatctt aatatgtctc ttgctgatct gtatcatcgt gatgcttctc 180
 ccgcagccgc agccgaaacc gcagccgcag ccgcagccgc agccgaaacc gcagccgaaa 240
 ccggaaccgg aaggtagcgg atcatcagaa aaagatgagt tgtaggcggc cgcagaattc 300
 catatgcata tcgag 315

<210> 27
 <211> 109
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> chimeric human TSP3-KDEL

<400> 27
 Met Arg Tyr Met Ile Leu Gly Leu Leu Ala Leu Ala Ala Val Cys Ser
 1 5 10 15
 Ala Ala Lys Lys Gly Ser Ser Leu Gly Asp Cys Cys Gly Glu Gln
 20 25 30
 Thr Lys Ala Leu Val Thr Gln Leu Thr Leu Phe Asn Gln Ile Leu Val
 35 40 45
 Glu Leu Arg Asp Asp Ile Arg Asp Gln Val Lys Glu Met Ser Leu Ile
 50 55 60
 Arg Asn Thr Ile Met Glu Cys Gln Val Cys Gly Pro Gln Pro Gln Pro
 65 70 75 80
 Lys Pro Gln Pro Gln Pro Gln Pro Gln Pro Lys Pro Gln Pro Lys Pro
 85 90 95
 Glu Pro Glu Gly Thr Gly Ser Ser Glu Lys Asp Glu Leu
 100 105

<210> 28
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> chimeric human TSP3-KDEL

<400> 28
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 gctgccaaaa aaggatccag cctgggtgga gactgttgctg gggagcagac caaggcattg 120
 gtcacccagc tcaccctctt caaccagatc ctagtggagc ttcgggacga catccgagac 180
 caggtgaagg aaatgtcact catccggaac accatcatgg agtgtcaggt gtgcgggtccg 240

cagccgcagc	cgaaaccgca	gccgcagccg	cagccgcagc	cgaaaccgca	gccgaaaccg	300
gaaccggaag	gtaccggatc	atcagaaaaa	gatgagttgt	aggcggccgc	agaattccat	360
atgcatctcg	ag					372

<210> 29
 <211> 109
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> chimeric human TSP4-KDEL

<400> 29

Met	Arg	Tyr	Met	Ile	Leu	Gly	Leu	Leu	Ala	Leu	Ala	Ala	Val	Cys	Ser
1				5					10					15	
Ala	Ala	Lys	Lys	Gly	Ser	Ser	Leu	Gly	Gly	Asp	Cys	Cys	Gly	Asp	Phe
		20					25						30		
Asn	Arg	Gln	Phe	Leu	Gly	Gln	Met	Thr	Gln	Leu	Asn	Gln	Leu	Leu	Gly
		35				40					45				
Glu	Val	Lys	Asp	Leu	Leu	Arg	Gln	Gln	Val	Lys	Glu	Thr	Ser	Phe	Leu
	50				55					60					
Arg	Asn	Thr	Ile	Ala	Glu	Cys	Gln	Ala	Cys	Gly	Pro	Gln	Pro	Gln	Pro
65				70					75					80	
Lys	Pro	Gln	Pro	Gln	Pro	Gln	Pro	Gln	Pro	Lys	Pro	Gln	Pro	Lys	Pro
		85				90							95		
Glu	Pro	Glu	Gly	Thr	Gly	Ser	Ser	Glu	Lys	Asp	Glu	Leu			
		100						105							

<210> 30
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> chimeric human TSP4-KDEL

<400> 30

aagcttacca	tgggaaggta	catgatttta	ggcttgctcg	cccttgccgc	agtctgcagc	60
gctgccaaaa	aaggatccag	cctgggtgga	gactgttggt	gggacttta	ccggcagttc	120
ttgggtcaaa	tgacacaatt	aaaccaactc	ctgggagagg	tgaaggacct	tctgagacag	180
cagggttaag	aaacatcatt	tttgcgaaac	accatagctg	aatgccaggc	ttgcggtccg	240
cagccgcagc	cgaaaccgca	gccgcagccg	cagccgcagc	cgaaaccgca	gccgaaaccg	300
gaaccggaag	gtaccggatc	atcagaaaaa	gatgagttgt	aggcggccgc	agaattccat	360
atgcatctcg	ag					372

<210> 31
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> peptide that binds to erd2 receptor

<400> 31
Tyr Thr Ser Glu Lys Asp Glu Leu
1 5

<210> 32
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide that binds to erd2 receptor

<400> 32
Leu Asn Tyr Phe Asp Asp Glu Leu
1 5

<210> 33
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> alpha-five integrin binding motif

<400> 33
Cys Asp Cys Arg Gly Asp Cys Phe Cys
1 5

<210> 34
<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> KDEL/myc

<400> 34
Met Gly Lys Phe Thr Val Val Ala Ala Ala Leu Leu Leu Leu Gly Ala
1 5 10 15
Val Arg Ala Glu Gly Ser Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
20 25 30
Tyr His Pro Asn Ser Thr Cys Gly Ser Ser Leu Gly Gly Asp Cys Cys
35 40 45
Pro Gln Met Leu Arg Glu Leu Gln Glu Thr Asn Ala Ala Leu Gln Asp
50 55 60
Val Arg Glu Leu Leu Arg Gln Gln Val Lys Glu Ile Thr Phe Leu Lys
65 70 75 80
Asn Thr Val Met Glu Cys Asp Ala Cys Gly Met Gln Pro Ala Arg Thr
85 90 95
Pro Gly Thr Ser Pro Gln Pro Gln Pro Lys Pro Gln Pro Gln Pro Gln
100 105 110
Pro Gln Pro Lys Pro Gln Pro Lys Pro Glu Pro Glu Gly Thr Gly Ser
115 120 125

Ser Glu Lys Asp Glu Leu
130

<210> 35
<211> 444
<212> DNA
<213> Artificial Sequence

<220>
<223> KDEL-myc

<400> 35
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cgggccgagg gatccgaaca aaaacttatt tctgaagaag acttgtagca cccaaactca 120
acatgcggat ccagcctggg tggagactgt tgtccacaga tgcttcgaga actccaggag 180
actaatgcgg cgctgcaaga cgtgagagag ctcttgcgac agcaggtcaa ggagatcacc 240
ttcctgaaga atacggtgat ggaatgtgac gcttgcgaa tgcagcccg cgcaccccc 300
ggtactagtc cgcagccgca gccgaaaccg cagccgcagc cgcagccgca gccgaaaccg 360
cagccgaaac cggaaccgga aggtaccgga tcatcagaaa aagatgagtt gtaggcggcc 420
gcagaattcc atatgcatct cgag 444

<210> 36
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> human myc tag

<400> 36
Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
1 5 10

<210> 37
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> recognition sequence of KDEL receptor

<400> 37
Lys Asp Glu Leu
1

<210> 38
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> binds to KDEL receptor

<223> Xaa= any amino acid

<400> 38

Xaa Asp Glu Leu

1

<210> 39

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> binds to KDEL receptor

<400> 39

Ser Glu Lys Asp Glu Leu

1

5

<210> 40

<211> 4

<212> PRT

<213> Ratus ratus

<400> 40

Gly Asp Leu Ala

1

<210> 41

<211> 4

<212> PRT

<213> Ratus ratus

<220>

<221> VARIANT

<222> (0) ... (0)

<400> 41

Gly Asp Cys Cys

1

<210> 42

<211> 4

<212> PRT

<213> Mus musculus

<400> 42

Gly Glu Gln Thr

1